



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D2056
Job Sheet 168312



Part No: D2056

Job Qty: 5 ea

Part Name: Bell Crank Assembly



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 11/13/17

Job Tracking No:

Due Date: 12/1/17

Created By: Linda Lacelle

Type: Stock

Description:

Note: DWG REV C IPP E 02.04.04 Added Rev.B2 NG

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	5 Ea		11/30/17	0.00	0.00	Start Up Machining		mmk 12/12/17
100	Bandsaw	5 pcs		11/30/17	0.00	0.27	Bandsaw1		
110	CNC Vertical Machining	5 pcs		11/30/17	0.29	2.45	HAAS 1		
130	QC	5 pcs		11/30/17	0.00	0.00	QC8		FK 12-12-13
140	HandFinish	5 pcs		12/1/17	0.00	0.11	HandFinish4		2017-12-13/21
150	Outsource	5 pcs		12/1/17	0.00	0.00	Outsource4		
160	Packaging	5 pcs		12/1/17	0.00	0.00	Packaging2		DAS
165	QC	5 pcs		12/1/17	0.00	0.00	QC6		38
170	Packaging	5 pcs		12/1/17	0.00	0.00	Packaging3	GA	AT 2-88 18/01/19
180	QC21-SA	5 Ea		12/1/17	0.00	0.00	QC21		

Part Op 100 - Cut blanks 2.80" long

Descriptions: 110 - Machine as per folio D2056 Tumble Deburr

140 - Clean part from makings with acid etch and scotch brite befor sending to get Anodize

150 - ISSUE P/O: _____ BLACK ANODIZE

170 - LOCATION : GA

JAN 22 2018

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	M6061T6B1.250X01.250	1	9	0	0

Date: _____

DQA: _____

Date: _____

QA Closed: _____

Work Order: _____

Part No. _____

NCR No. _____

Date: _____

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DART
AEROSPACE
S020962



Bell Crank Assembly

PART NO: D2056
Revision:
Operation: Outsource
Change No:

Mfg Date: 12/12/17
Job No: 168312

Environment	Design	Doc/Data	Equip/Tooling	Handling/Pre	Material	Internal Transport	Tribal Knowledge	LOA	Substation	Past Expiry Date	Misidentified

Rushing	Product Improvement	Process Improvement	Manufacturing Process	Past Due

Heat Treat	Wave/Twist in Tube	Marks/Chatter	OTHER:

Cut 100 Short	Instructions Incomplete/Unclear	Drill Holes

ature/Cur
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/Damage/L
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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Mfg Date: 12/12/17
Job No: 168312

Off-set	Mislabeled	Fit/Function	Misaligned/off center

Drawing	Finish	Misread	Turning Sequence

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Part Specifications					
Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Bell Crank	0.750Inches ± 0.010	0.760 0.740		
2	Bell Crank	0.900Inches ± 0.010	0.910 0.890		
3	Bell Crank	1.000Inches ± 0.010	1.010 0.990		
4	Bell Crank	0.125Inches ± 0.010	0.135 0.115		
5	Bell Crank	0.060Inches ± 0.010	0.070 0.050		
6	Bell Crank	0.191Inches $+ 0.005$ $- 0.001$	0.196 0.190	Diameter	
7	Bell Crank	0.362Inches ± 0.010	0.372 0.352		
8	Bell Crank	0.750Inches ± 0.010	0.760 0.740		
9	Bell Crank	0.257Inches $+ 0.006$ $- 0.001$	0.263 0.256	Diameter	
10	Bell Crank	0.100Inches ± 0.010	0.110 0.090		
11	Bell Crank	0.300Inches ± 0.010	0.310 0.290		
12	Bell Crank	0.946Inches ± 0.010	0.956 0.936		
13	Bell Crank	0.075Inches ± 0.010	0.085 0.065		
14	Bell Crank	2.637Inches ± 0.010	2.647 2.627		
15	Bell Crank	0.375Inches ± 0.010	0.385 0.365		
16	Bell Crank	0.513Inches $+ 0.005$ $- 0.000$	0.518 0.513	Diameter	
17	Bell Crank	0.450Inches ± 0.010	0.460 0.440	Radius	
18	Bell Crank	0.125Inches ± 0.010	0.135 0.115	Radius	
19	Bell Crank	0.200Inches ± 0.010	0.210 0.190	Radius	
20	Bell Crank	0.550Inches ± 0.010	0.560 0.540	Radius	
21	Bell Crank	0.263Inches ± 0.010	0.273 0.253	Radius	

Plex 11/14/17 8:04 AM dart.boucher.sylvie

DQA: _____ Date: _____

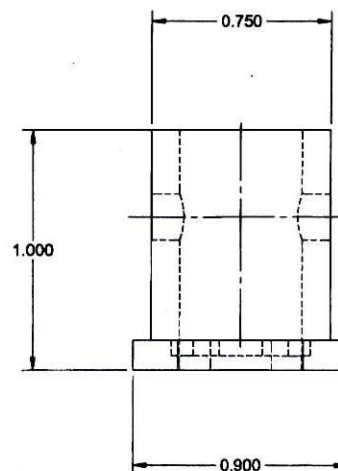
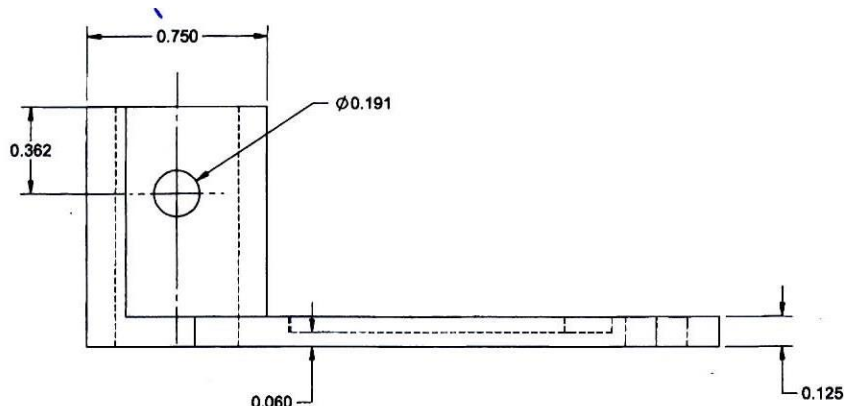
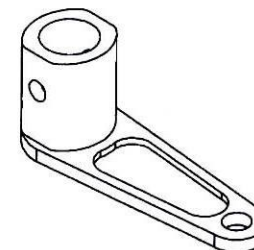
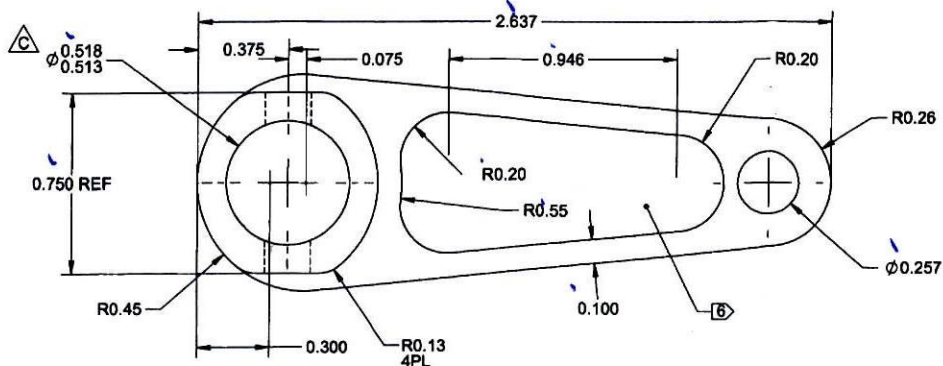


WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					



D2056 BELL CRANK

RELEASED
2013-02-12



- NOTES:**
- 1) MATERIAL: ALUMINUM, 6061-T6/T651/T6511/T62 PER QQ-A-200/8 OR QQ-A-225/8 OR ASTM B211 OR ASTM B221 REF DART SPEC M6061T6B
 - 2) FINISH: BLACK ANODIZE PER MIL-A-8625F, TYPE II, CLASS 2 (PREFERRED) OR CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT "BLACK SANDEX" (4.3.5.7) PER DART QSI 005 4.3 (OPTIONAL)
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 0.04 lbs

C	UPDATE TO CURRENT STANDARDS: BLACK ANODIZE IS NOW THE PREFERRED FINISH. REF PAR12-229; ADD NOTE ON TOLERANCES; MODIFY HOLE SIZE; ADD POWDER COAT OPTION	SFM	12.12.21
B	RE-DESIGN	KH	95.11.02
REV.	DESCRIPTION	BY	DATE
DESIGN	BW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SFM		
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D2056	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		BELL CRANK	NTS
DATE	12.12.21	COPYRIGHT © 1992 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO038682

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
			is required							
20	167949	SWA10A-700	Wire Clamp : IPP Rev A 17.11.08 New issue DP Verify DD -Issue P/O to ATG: -HARD ANODIZE COLOR BLACK, PER IAW MIL-A- 8625F TYPE 3 CLASS 2 -Certificate of Conformity is required	Firmed	1/17/18	20 pcs	0 pcs	20 pcs	\$7.75/pcs	\$155.00
21	168311	D2055	Clamp Issue P/O to ATG: ANODIZE COLOR BLACK, PER IAW MIL-A- 8625F TYPE 2 CLASS 2 C OF C IS REQUIRED	Firmed	1/17/18	5 pcs	0 pcs	5 pcs	\$6.20/pcs	\$31.00
22	168312	D2056	Bell Crank Assembly ISSUE P/O: BLACK ANODIZE	Firmed	1/17/18	5 pcs	0 pcs	5 pcs	\$6.20/pcs	\$31.00
23	168040	D1038-58B	Avionics Fastener Rail Issue P/O: Black Anodize as per Dwg D1038	Firmed	1/17/18	50 pcs	0 pcs	50 pcs	\$4.25/pcs	\$212.50
24	169062	RBW109-3101-58-1-7	Handle -Issue P/O to ATG: -ANODIZE COLOR BLUE, PER IAW MIL-A-8625F TYPE 2 CLASS 2, Water sealant -Certificate of Conformity is required	Firmed	1/17/18	1 pcs	0 pcs	1 pcs	\$51.00/pcs	\$51.00
25	169518	RBW109-3101-58-2-7	Handle -Issue P/O to ATG: -ANODIZE COLOR BLUE, PER IAW MIL-A-8625F TYPE 2 CLASS 2, Water sealant -Certificate of Conformity is required	Firmed	1/17/18	1 pcs	0 pcs	1 pcs	\$51.00/pcs	\$51.00
26	168827	RBW6705G02431-3G-1	Lever Rigging Fork -Issue P/O to ATG: - ANODIZE COLOR CLEAR, PER IAW MIL-A-8625F TYPE 2	Firmed	1/17/18	3 pcs	0 pcs	3 pcs	\$6.20/pcs	\$18.60



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 914402

Date: 11-Jan-18

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Chantal Lavoie
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		OUR TRUCK	
Quantity	Description		
	Please reference this document's Pack List number on all correspondences regarding this shipment. If you have any questions, please contact us.		
6 ea	Part: RBT18601 Main Rotor Swashplate ReGreasi Red Anodize per MIL-A-8625F, Type II, Class 2, .0004-.0010" (.4 - 1 mils), Water Sealant Job: 22205		Rev: 1C PO: PO038682 Line: 17
20 ea	Part: SWA10A-700 Wire Clamp Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils) Job: 22208		Rev: 4 PO: PO038682 Line: 20
5 ea	Part: D2056 Bell Crank Assembly Black Anodize per MIL-A-8625F, Type II, Class 2, .0004-.0010" (.4 - 1 mils). Job: 22210		Rev: C PO: PO038682 Line: 22
1 ea	Part: RBW6505G00831-3G-23 Bar Clear Anodize per MIL-A-8625F, Type II, Class 1, .0004-.0010" (.4 - 1 mils), Water Sealant Job: 22216		Rev: 2 PO: PO038682 Line: 28
1 ea	Part: RBW6505G00831-3G-25 Mount Plate Clear Anodize per MIL-A-8625F, Type II, Class 1, .0004-.0010" (.4 - 1 mils), Water Sealant Job: 22217		Rev: 2 PO: PO038682 Line: 29
CERTIFICATE OF CONFORMANCE A.T.G Industries Inc. certifies that all items in this shipment conform to the requirements. Date: 11/01/2018			
Made in Canada.			

18/1/12 *[Signature]*



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 914402

Date: 11-Jan-18

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

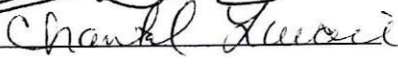
Chantal Lavoie
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via
		OUR TRUCK
Quantity	Description	
	Certified Signature: 	
	Receiver Signature: 	
	A.T.G Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited.	
	Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.	
Made in Canada.		



Dart Hawkesbury
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada
Tel (613) 632-5200

Inventory

Operation Number	Operation	Serial Number	Job	Quantity	Weight	Original Serial Number	Location	Container	Status	Added	Special Comments	Label	Supplier	Change No
Part Number: D2056 Revision: Bell Crank Assembly														
180	QC21-SA	S020962	168312	5 Ea	0	S020962	GA	Bin	Stock	12/12/2017	Issue Container			
Operation Totals:		1		5	0									
Part Totals:		1		5	0									
Part Number: M6061T6B1.250X01.250 Revision: 6061-T6 Bar 1.25 X 1.25														
100	Receive Ft	S020959	168312	1 ft	0	M137586	Start Up Machining		Stock	12/12/2017	Issue Container			
Operation Totals:		1		1	0									
Part Totals:		1		1	0									
Totals:		2		6	0									

Plex 1/22/2018 9:10 AM Dart.Lajeunesse.Marie

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																											
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